

Toth et al.

U.S. Serial No. 10/064,172

IN THE CLAIMS

Claims 1-5 (Cancelled)

6. (Original) A CT system comprising:
rotatable gantry having an opening defining a scanning bay;
a movable table configured to translate a subject to be scanned along a first axis within the scanning bay;
an x-ray projection source configured to project x-rays projected toward the subject;
a pre-subject filter to filter x-rays projected toward the subject, the filter having a variable attenuation profile; and
a computer programmed to:
determine an attenuation pattern of the subject;
translate the filter along the first axis as a function of the attenuation pattern of the subject; and
acquire imaging data of the subject.

7. (Original) The CT system of claim 6 wherein the computer is further programmed to translate the filter in a transverse direction as a function of the attenuation pattern of the subject.

8. (Original) The CT system of claim 7 wherein the computer is further programmed to position the filter as a function of the attenuation pattern of the subject to reduce radiation exposure to dose reduction regions of the subject.

9. (Original) The CT system of claim 8 wherein the dose reduction regions include anatomical regions sensitive to radiation.

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10. (Original) The CT system of claim 6 wherein the computer is further programmed to determine the attenuation pattern of the subject from a set of patient projections.

11. (Original) The CT system of claim 6 wherein the computer is further programmed to move the filter as a function of gantry rotation.

Claims 12-20 (Canceled)

21. (Previously Presented) A radiographic imaging system comprising:

a scanning bay;

a movable table configured to move a subject to be scanned fore and aft along a first direction within the scanning bay;

an x-ray projection source configured to project x-rays in an x-ray beam toward the subject;

a pair of cam filters formed of attenuating matter, wherein each cam filter has a length and an attenuation profile that varies as a function of filter length and wherein the attenuation profile of each filter is a function of filter thickness; and

a computer programmed to:

determine a region-of-interest of the subject;

position the pair of cam filters to limit x-ray exposure outside the region-of-interest; and

translate at least one of the filters in the first direction to either increase or decrease x-ray exposure to the region of interest.

22. (Previously Presented) The radiographic imaging system of claim 21 wherein the pair of cam filters is oriented in an x-axis.

23. (Previously Presented) The radiographic imaging system of claim 21 wherein each cam filter has an elliptical shape.

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24. (Previously Presented) The radiographic imaging system of claim 21 wherein the computer is further programmed to decrease a space between the pair of filters to narrow the x-ray beam and increase the space between the pair of filters to widen the x-ray beam.

Claims 25–27 (Canceled)